

REMARKS

In response to the Office Action mailed November 7, 2008, Applicants respectfully request reconsideration. Claims 1-4 and 6-17 were previously pending in this application. Claims 1, 2, 4 and 14 have been amended herein. Claim 7 has been canceled without prejudice or disclaimer. As a result, claims 1-4, 6 and 8-17 are pending for examination with claim 1 being the sole independent claim. No new matter has been added.

Objections to the Claims

The Office Action objected to claim 4 because the word "is" purportedly should be inserted after the word "oxide" in line 2. Applicants respectfully disagree because the Office Action's requested change would make claim 4 grammatically incorrect. Applicants respectfully submit that claim 4 is grammatically correct as presented in this amendment. Accordingly, Applicants request that this objection be withdrawn.

Rejections under 35 U.S.C. §112

I. The Office Action rejected claims 1-4 and 16-17 under 35 U.S.C. §112, first paragraph, as purportedly failing to comply with the written description requirement. Applicants respectfully request reconsideration of the rejection of claim 1 and traverse the remaining rejections.

With respect to claim 1, the Office Action alleges that the specification does not disclose a resistance of less than $15 \Omega/\text{cm}^2$. Applicants do not concede that this rejection is proper. To further the prosecution of this application, however, claim 1 has been amended herein to recite that the transparent electrode has a resistance of about $5 \Omega/\text{cm}^2$. Transparent electrodes having resistances of about $5 \Omega/\text{cm}^2$ are disclosed at ¶¶42, 46-50, and 55 and Table 1 (Examples 1-8) of the present application, for example.

The Office Action rejected claim 7 under 35 U.S.C. §112, first paragraph, as purportedly failing to comply with the written description requirement. This rejection is moot because claim 7 has been canceled herein.

With respect to claim 11, the Office Action alleges that Applicants' specification does not disclose antimony. Applicants respectfully disagree because ¶19 of the present specification

discloses that the metallic oxides and derivatives thereof may be formed of Sb_2O_3 . Applicants point out that Sb is the atomic symbol for antimony.

With respect to claim 12, the Office Action alleges that Applicants' specification does not disclose calcium. Applicants respectfully disagree because a coating comprising calcium (CaGaO_4) is disclosed in ¶50 of the present application. Applicants point out that Ca is the atomic symbol for calcium.

With respect to claim 13, the Office Action alleges that Applicants' specification does not disclose gallium. Applicants respectfully disagree because a coating comprising gallium (CaGaO_4) is disclosed in ¶50 of the present application. Applicants point out that Ga is the atomic symbol for gallium.

In view of the foregoing, Applicants respectfully request that the rejections under 35 U.S.C. §112, first paragraph, be withdrawn.

II. The Office Action rejected claims 2, 4 and 14 under 35 U.S.C. §112, second paragraph, as purportedly being indefinite for failing to particularly point and distinctly claim the subject matter which Applicants regard as the invention. Applicants respectfully request reconsideration.

The Office Action rejected claim 2 because the word "layer" should be inserted between the words "oxide" and "derivative" for proper antecedent basis. In response, claim 2 has been amended as requested in the Office Action.

The Office Action rejected claim 4 because the word "layer" should be inserted after the word "oxide" for proper antecedent basis. In response claim 4 has been amended to recite a "metallic oxide layer or derivative layer thereof."

The Office Action rejected claim 14 because the term "FTO" is purportedly indefinite. The Office Action suggested that this term should be spelled out. In response, claim 14 has been amended to recite fluorine-doped conductive glass, as disclosed in ¶6 of the present application.

In view of the foregoing amendments, Applicants respectfully request that the rejections under 35 U.S.C. §112, second paragraph, be withdrawn.

Rejections under 35 U.S.C. §103

The Office Action rejected claims 1-4, 7, 14 and 17 (including independent claim 1) under 35 U.S.C. §103(a) as purportedly being unpatentable over Fujimori et al., of record. Applicants respectfully traverse these rejections.

Claim 1 recites, *inter alia*, a transparent electrode having a resistance of about $5 \Omega/\text{cm}^2$. Fujimori does not teach or suggest a transparent electrode having a resistance of about $5 \Omega/\text{cm}^2$. Notably, the Office Action does not allege that Fujimori discloses a resistance as low as $5 \Omega/\text{cm}^2$. The Office Action alleges, however, that the "invention as a whole" would have been obvious to one having ordinary skill in the art because Fujimori et al. purportedly teaches the same transparent electrode as presently claimed. Applicants respectfully disagree because Fujimori clearly states that the resistance of barrier layer 8 is much higher than the resistance recited in claim 1 of the present application. Fujimori states that the resistance of barrier layer 8 is larger than about $100 \Omega/\text{cm}^2$, and preferably larger than $1 \text{ k}\Omega/\text{cm}^2$ (col. 2, lines 44-55). Fujimori's device is therefore clearly different from the electrode recited in claim 1 because Fujimori's barrier layer 8 has a much larger resistance than $5 \Omega/\text{cm}^2$.

The Office Action has not provided any rationale as why one of ordinary skill in the art would have modified Fujimori's barrier layer to have the properties recited in claim 1 of the present application, as required to support a rejection under 35 U.S.C. §103. One of ordinary skill in the art would not have been motivated to reduce the resistance value of Fujimori's barrier layer 8. On the contrary, Fujimori states that it is preferable that barrier layer 8 have a high resistance in the thickness direction to prevent or suppress short circuits (col. 2, lines 55-60). Thus, Fujimori teaches away from reducing the resistance of barrier layer 8 because doing so would be contrary to Fujimori's stated goal of preventing short circuits. Based on Fujimori's disclosure, one of ordinary skill in the art would have been led to *increase* the resistance of barrier layer 8, not decrease the resistance. Thus, one of ordinary skill in the art would not have modified Fujimori's device in a manner that meets the limitations of claim 1.

For these reasons, claim 1 patentably distinguishes over Fujimori. Claims 2-4, 6 and 8-17 depend from claim 1 and are patentable for at least the same reasons.

CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, the Director is hereby authorized to charge any deficiency or credit any overpayment in the fees filed, asserted to be filed or which should have been filed herewith to our Deposit Account No. 23/2825, under Docket No. .S1459.70065US00.

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Respectfully submitted,

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